

Diploma Course (Microbial analysis and Food safety)
First Semester
MFS-105: Principles of Food Safety and Sanitation

Max. Marks: 40

Time allowed: 3 hrs.

Note: Attempt five questions in all, including Question no. I which is compulsory and selecting one question from each Unit.

I. Each question carry equal marks (1)

- a) What are the points which must be considered for the personal hygiene of the food handlers in food establishments?
- b) Write 3 main importance of microbial analysis in food industries?
- c) Name 4 food grade cleaners?
- d) What are the various types of Sanitizers?
- e) Define Disinfection and give its examples?
- f) What is ISO 14000?
- g) Define Biofilm and name 2 Biofilm producing microorganisms?
- h) Enlist 3 pest control measures used in grain storage warehouses?

UNIT-1

- II. a)** What are the various mode of transmission of an infection from food to the consumers? (4)
- b)** Define Sanitation and its importance. What are the necessary steps for an efficient Cleaning Programme? (4)
- III. a)** Explain various Food Safety Measures done in Food Service Establishments?(4)
- b)** What are the basic requirements for the storage of food grains in the warehouses or other storage areas? (4)

UNIT-II

- IV.** a) Differentiate between Cleaning agents and Sanitizers and give 4 examples of each? (4)
b) Explain the types of cleaning mechanisms of cleaning agents? (4)
- V.** a) What are characteristics of chemical Sanitizers? Explain the mechanism of action of the Sanitizers? (4)
b) Discuss the various Air pollutants and its sources. What are the Effects of Air Pollution? (4)

UNIT-III

- VI.** a) Differentiate between Non-degradable & biodegradable waste from food industries? (4)
b) What are the various types of waste and end products produced from the food industry? (4)
- VII.** a) Explain various steps of waste water treatment in food plants? (4)
b) Define Composting? What are the methods of disposal of solid wastes? (4)

UNIT-IV

- VIII.** a) What is an Environmental Management System? Discuss its functions? (4)
b) What are the Key Elements of ISO 14000? (4)
- IX.** a) Name the regulatory agencies which control food quality? (4)
b) What are the Standards for emission of environmental pollutants from food processing industries? (4)